

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/104117 A1

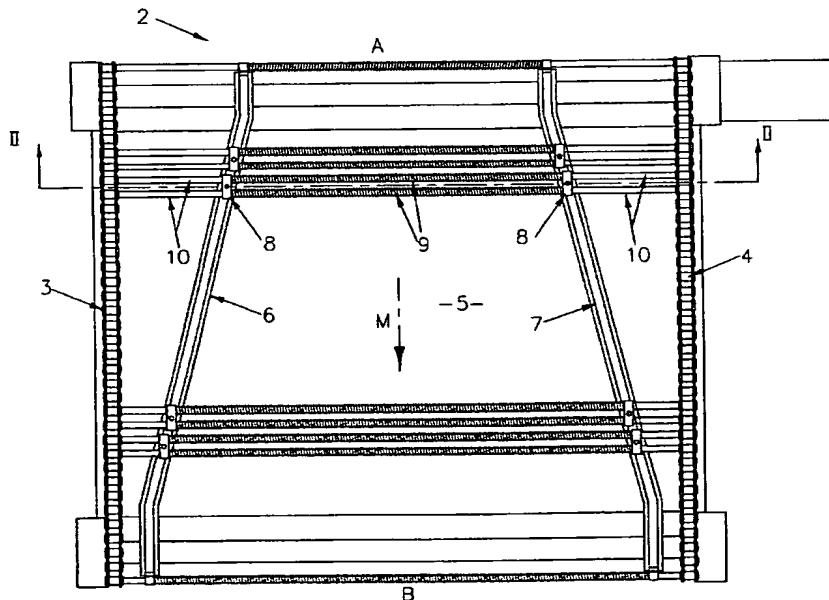
- (51) International Patent Classification⁷: **B65G 47/28**
- (21) International Application Number: **PCT/NZ03/00110**
- (22) International Filing Date: 4 June 2003 (04.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
519386 5 June 2002 (05.06.2002) NZ
- (71) Applicant (for all designated States except US): **HENLEY INDUSTRIES LIMITED [NZ/NZ]; C/O Tait Ward Adams, 65 Don Street, Invercargill (NZ).**
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HARWOOD, Andrew, John [NZ/NZ]; 14a Willis Place, Christchurch (NZ). HENLEY, Bruce, Hyndman [NZ/NZ]; 120 Gladstone Terrace, Invercargill (NZ).**
- (74) Agent: **BUCHANAN, Elspeth, Victoria; P.O. Box 1250, Christchurch (NZ).**
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONVEYOR



WO 03/104117 A1

(57) **Abstract:** A conveyor (2) which is able to reposition articles (15) or to alter spacing of articles carried on the conveyor (5), the conveyor having a pair of spaced parallel drive means (3,4) between which are secured a number of spaced parallel rigid supports (10) which when moved by the drive means are arranged to follow guide tracks (6,7) arranged between the drive means (3,4), the guide tracks being arranged to converge or diverge as required; each support has a pair of spaced retainer blocks (8,8) mounted on it and a coil spring (9) is mounted around each support between each pair of retainer blocks; the coil spring expands or contracts as the spacing between the retainer blocks increases or decreases.